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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,365	06/28/2006	Menachem Nathan	06727/0204286-US0	8236

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EXAMINER	
PARSONS, THOMAS H	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
07/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,365	NATHAN ET AL.	
	Examiner	Art Unit	
	THOMAS H. PARSONS	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,19-24,35,38,39,43,60-65 and 76-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,19-24,35,38,39,43,60-65 and 76-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/07/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 19-24, 77, 35, 38-39, 60-65, 78 and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by Nathan et al. (US 6,197,450).

Claim 19: Nathan et al. in Figure 1 an electrical energy storage device, comprising:

a substrate having a multiplicity of cavities formed therein, the cavities having an aspect ratio greater than one and having surface areas; and

thin films formed over the surface areas and defining an anode, a cathode, and a solid electrolyte disposed between the anode and the cathode, the thin films comprising a final layer, which is formed so as to fill the cavities. See col. 2: 25-60, col. 3: 25-col. 5: 60, and claim 8.

Claim 20: Nathan et al. further disclose that the substrate comprises at least one of a non-conductive material, a semiconductor material, and a conductive material (col. 3: 25-33).

Claim 21: Nathan et al. further disclose that the substrate has top and bottom surfaces, and wherein the cavities are formed so as to pass through the substrate from the top to the bottom surface (i.e. through-cavities)(col. 3: 25-37).

Claim 22: Nathan et al. further disclose that the substrate has top and bottom surfaces, and wherein the thin films are further formed over at least one of the top and bottom surfaces (col. 2: 26-38).

Claim 23: Nathan et al. further disclose that the thin films comprise at least one current collector layer (col. 2: 26-38).

Claim 24: Nathan et al. further disclose that the solid electrolyte comprises a hybrid polymer electrolyte (col. 2: 28-31).

Claim 77: Nathan et al. further disclose that the substrate comprises a microchannel plate (MCP) having channels formed therein, which serve as the cavities (col. 3: 25-37).

Claim 35: Nathan et al. in Figure 1 disclose an electrical energy storage device, comprising:

a tube, having a channel passing therethrough, the channel having a surface area; and thin films formed over the surface area and defining an anode, a cathode, and a solid electrolyte disposed between the anode and the cathode. See col. 2: 25-60, and col. 3: 25-col. 5: 60.

Figure 1 discloses multiple through-cavities, each of which has been construed as a tube.

Claim 38: Nathan et al. disclose a microelectronic device, comprising:

a microcircuit (col. 1: 39-51);

a substrate having a multiplicity of cavities formed therein, the cavities having an aspect ratio greater than one and having surface areas; and

thin films formed over the surface areas and defining an anode, a cathode, and a solid electrolyte disposed between the anode and the cathode, the thin films comprising a final layer, which is formed so as to fill the cavities, the thin films being coupled to provide electrical power to the microcircuit. See col. 2: 25-60, col. 3: 25-col. 5: 60, and claim 8.

Claim 39: Nathan et al. further disclose that microcircuit is disposed on the substrate.

Claim 60: Nathan et al. in Figure 1 disclose a method for fabricating an electrical storage cell, comprising:

providing a substrate having a multiplicity of cavities formed therein, the cavities having an aspect ratio greater than one and having surface areas; and

forming thin films over the surface areas so as to define an anode, a cathode, and a solid electrolyte disposed between the anode and the cathode, the thin films comprising a final layer, which is formed so as to fill the cavities. See col. 2: 25-60, col. 3: 25-col. 5: 60, and claim 8.

Claim 61: Nathan et al. further disclose that the substrate comprises at least one of a non-conductive material, a semiconductor material, and a conductive material (col. 3: 25-33).

Claim 62: Nathan et al. further disclose that substrate has top and bottom surfaces, and wherein the cavities are formed so as to pass through the substrate from the top to the bottom surface (i.e. through-cavities)(col. 3: 25-37).

Claim 63: Nathan et al. further disclose that the substrate has top and bottom surfaces, and wherein forming the thin films further comprises forming the thin films over at least one of the top and bottom surfaces (col. 2: 26-38).

Claim 64: Nathan et al. further disclose that thin films comprise at least one current collector layer (col. 2: 26-38).

Claim 65: Nathan et al. further disclose that the solid electrolyte comprises a hybrid polymer electrolyte (col. 2: 28-31).

Claim 78: Nathan et al. further disclose that the substrate comprises a microchannel plate (MCP) having channels formed therein, which serve as the cavities (col. 3: 25-37).

Claim 76: Nathan et al. in Figure 1 disclose a method for fabricating an electrical storage cell, comprising:

providing a tube having a channel passing therethrough, the channel having a surface area; and

forming thin films over the surface area so as to define an anode, a cathode, and a solid electrolyte disposed between the anode and the cathode. See col. 2: 25-60, and col. 3: 25-col. 5: 60.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nathan et al. as applied to claims 19 and 77, and 60 and 78 above, and further in view of the Background of the Invention section of the instant application.

Nathan et al. are as applied, argued, and disclosed above, and incorporated herein.

Claims 2 and 43: Nathan et al. disclose an MCP with through cavities (i.e. tubes), but are silent as to an MCP comprising a plurality of tubes, which are fused together and cut to define the MCP, the tubes having lumens, which define the channels.

The Applicants' Background of the Invention section of the instant application discloses a known MCP comprising a plurality of tubes, which are fused together and cut to define the MCP, the tubes having lumens, which define the channels (page 1, line 17-page 2, line 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the MCP of Nathan et al. by incorporating the tubes of the Applicants' Background of the Invention section of the instant application because the Applicants teach a known MCP that obviously would have provided a substrate equivalent to that disclosed in Nathan et al.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS H. PARSONS whose telephone number is (571)272-1290. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795

Thomas H Parsons
Examiner
Art Unit 1795

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